

ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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JUN - 7 1995

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of)

)
Amendment of Part 90 of the)
Commission's Rules to Adopt)
Regulations for Automatic)
Vehicle Monitoring Systems)

PR Docket No. 93-61

DOCKET FILE COPY ORIGINAL

REPLY OF PINPOINT COMMUNICATIONS, INC.

Pinpoint Communications, Inc. ("Pinpoint"), by its attorneys, hereby submits this Reply to oppositions to petitions for reconsideration of the February 6, 1995, *Report and Order* (the "*Order*") in the above-captioned proceeding. *Regulations for Automatic Vehicle Monitoring Systems*, PR Docket No. 93-61, FCC 95-41 (rel. Feb. 6, 1995).

Multilateration location and monitoring service ("LMS") licensees have developed an ample record on reconsideration to support measured modification of the new LMS rules. In brief, it is essential for the FCC, without further delay, to: (1) adopt the consensus emission mask in lieu of the mask set forth in the *Order*; (2) make the presumption of non-interference applicable to Part 15 devices rebuttable and generally revisit the unprecedented and precedent-setting decision to give Part 15 devices the essential trappings of primary status; (3) provide for a shared sub-band; and (4) permit grandfathered licensees flexibility to better meet subscriber needs. These changes will better ensure the availability to American consumers of robust LMS and promote the development of Intelligent Transportation Systems.

I. THE CHANGES TO THE CONSENSUS EMISSION MASK PROPOSED BY PART 15 INTERESTS ARE INADEQUATE FOR LMS AND UNNECESSARY

In their oppositions, some of the Part 15 interests take issue with the consensus emission mask proposal of the multilateration LMS providers.¹ TIA, for example, states that

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List ABCDE

¹ See TIA at 7-10; Part 15 Coalition at 16-17; CellNet at 5. References to oppositions appear in abbreviated form, a key to which is attached as Appendix 1.

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List ABCDE

no justification has been provided for adopting a "relaxed version" of the Part 94 mask.² This proposal raises serious questions concerning TIA's understanding of how LMS systems operate.³ The recommendation to use the Parts 21 or 94 masks assumes that the power spectra of the systems under measurement are continuous. That is, when instrumentation resolution bandwidths are adjusted, a corresponding change will occur in the measurement of the power level. This is the case for digital data sent over a fixed digital microwave system, for example. LMS systems, on the other hand, send ranging sequences that are periodic to accomplish the ranging function and that result in a discrete line spectrum that will give misleading and inaccurate results when subjected to the fixed digital microwave emissions specification. This effect is particularly notable when the code repetition rate is greater than the resolution bandwidth of the instrumentation. This results in a measurement of the discrete line spectrum and not the desired industry standard emissions susceptibility measurement. The Pinpoint system uses a repetition rate of 90,000/sec., hence a resolution bandwidth of 4 kHz, rather than the 100 kHz in the LMS consensus proposal, would result in a 13 dB error in interpretation.

² Part 15 Coalition at 16; TIA at 8-9.

³ TIA, in its opposition, reveals a further misapprehension of multilateration systems in its suggestion that Pinpoint's proposal that the height/power relationship in Section 90.361(c) be modified because devices at 15 meters, even with the power derating in the new rule, would have more interference potential than those at 5 meters. Dr. Padgett of TIA asserts that Pinpoint does not understand the Hata propagation model upon which it relies and which does not give the result Pinpoint claims. Dr. Padgett craftily cites the variation of the Hata model for the large city environment. However, this environment represents only about one percent or less of the geographic area of a typical multilateration system. The same is probably true of Part 15 wide-area data or video distribution networks, such as Metricom, that stand to benefit the most from heights above 5 meters. In the much more common suburban and open environments, the propagation characteristics of transmitters at 15 meters (above most three-story structures) approach free space. Pinpoint's discussion regarding the interference potential of such transmitters is therefore appropriate. Accordingly, the FCC should adopt Pinpoint's proposed modification of Section 90.361(c). See Pinpoint Petition at 22.

Moreover, the specifications of the consensus emission mask encompass the unique requirements of the various existing multilateration LMS technologies. LMS systems deployed under the interim rules cannot meet a more stringent standard -- be it the FCC's new mask or the mask used for microwave transmission services -- without significant redesign of their systems. Similarly, multilateration LMS licensees that designed their technologies under the interim rules must construct their systems expeditiously in order to receive the benefit of the Commission's grandfathering provisions; they will be placed in an untenable position unless the consensus proposal is adopted.

CellNet claims that the "serious potential for interference" to Part 15 devices "will only be exacerbated" if the emission mask is relaxed and inexplicably concludes that, at most, a relaxed emission mask should be adopted only if an LMS transmitter is operating at 1 W or below.⁴ However, CellNet provides no basis for its claim that the consensus emission mask will result in more interference to Part 15 devices or for its stringent proposal. To the contrary, as Pinpoint made clear in its Opposition,⁵ the record demonstrates that the biggest potential source of interference to Part 15 devices will be other Part 15 devices.⁶

II. IF THE PRESUMPTION OF NONINTERFERENCE IS MADE REBUTTABLE, MULTILATERATION LMS PROPONENTS WILL ONLY BE ABLE TO ACT IN CASES OF ACTUAL INTERFERENCE

Multilateration LMS interests have convincingly demonstrated that the real problems of potential interference to licensed multilateration LMS systems in the 902-928 MHz band require the presumption of non-interference from Part 15 devices to be rebuttable. In

⁴ CellNet at 4-5.

⁵ Opposition of Pinpoint Communications, Inc. at 13-14.

⁶ See, e.g., *Ex Parte* Filing of Pinpoint Communications, Inc. (filed Sept. 15, 1994) at 15-22 ("*Pinpoint Sept., 15, 1994 Ex Parte*"); see also *Interference Analysis of Part 15 Devices and LMS Systems -- Initial Calculations, Annex 2, Further Comments of MobileVision* (dated March 15, 1994).

response, Part 15 commenters, true to form, make a number of contentious and disingenuous claims. Ad Hoc Gas, for example, claims that multilateration systems have "flip-flopped" on their assertion that, by and large, they are interference tolerant.⁷ The Part 15 industry has always examined this assertion from a simplistic static perspective concluding that if LMS systems are capable of receiving harmful interference in any situations. The assertion simply is not true. It is and has always been apparent from a statistically dynamic *system* perspective that the potential for harmful interference -- while indeed low -- is *not* nonexistent.⁸

If the Commission wishes to adopt a presumption that makes clear how much interference tolerance needs to be designed into a multilateration system, as the Part 15 Coalition suggests it intended to do, the agency should adopt a presumption that is based on the interference received at a base station site, rather than one based on the height and power of the Part 15 device.⁹ After all, the interference potential of a device depends upon the power received by the victim receiver, *not* the power transmitted by the interferer *per se*.

In this regard, it is ironic, to say the least, that the Part 15 industry fears interference from multilateration LMS licensees when the most likely interference to Part 15 devices will be caused by unlicensed wide-area data distribution networks such as Metricom which have no

⁷ Ad Hoc Gas at 7.

⁸ *See, e.g.* Reply Comments of Pinpoint Communications, Inc. at 29-30 (filed March 29, 1994).

⁹ An example of such a specification is the June 23, 1994 consensus proposal submitted by the multilateration LMS licensees. Letter to Ralph Haller, Chief, Private Radio Bureau from MobileVision, Pinpoint, Teletrac and Uniplex (dated June 23, 1994). The Part 15 Coalition's gratuitous remark that "LMS systems must be designed to comply with the rules, and not vice versa" (Part 15 Coalition at 17) is almost laughable given that the elevation of Part 15 in this band is solely the result of Part 15's general inability to design systems capable of operating in conformance with the basic non-interference obligations of Section 15.5(b). The LMS systems, in contrast, were all designed in compliance with the rules in place at the time, albeit some multilateration LMS developers have claimed the need for exclusive licensing.

obligation to resolve interference. For this reason, as MobileVision recognized, true secondary status for Part 15 in multilateration spectrum will actually create a safe haven for Part 15 devices susceptible to Metricom's interfering operations.¹⁰

Once again, TIA chooses not to recognize this and instead offers its repetitious litany against wideband forward links. This tiresome tirade utterly fails to offer anything new to the debate, and in fact, upon several occasions, appears to deliberately misread Pinpoint's January 25, 1995 *ex parte*. Accordingly, for the reasons consistently set forth by Pinpoint in its September 15, 1994 and January 15, 1995, *ex parte* responses to TIA's, incorporated herein by reference, the authority to use wideband forward links should be retained.

III. THE COMMISSION SHOULD NOT STAY THE PROCEEDING FURTHER, AS AD HOC GAS SUGGESTS, WHILE INTERFERENCE TESTS ARE CONDUCTED

The true colors of Part 15 come out in the oppositions and comments: they see Section 90.353(a)(4) testing as a way to delay the deployment of multilateration systems indefinitely. Ad Hoc Gas suggests that the Commission stay this proceeding and supervise tests to further define the scope of an MTA licensee's duty to test.¹¹ This suggestion is a thinly-veiled and self-serving ploy to: (1) thwart licensees' ability quickly to deploy LMS technologies; and (2) secure, to the extent practicable, the spectrum for Part 15 alone.

Likewise, Symbol has the nerve, or naivete, to propose a Part 15/LMS collaborative testing group.¹² Echoing Symbol's comments, the Part 15 Coalition even volunteers to coordinate such testing procedures.¹³ Given the past behavior of Part 15 interests when it comes to testing, however, it is plain that such a process would be counterproductive and

¹⁰ MobileVision at 9.

¹¹ Ad Hoc Gas at 11.

¹² Symbol at 10-11.

¹³ Part 15 Coalition at 7.

needlessly delay the deployment of LMS. Indeed, Appendix 2 to this Reply provides illuminating -- though by no means unusual -- evidence probative of Part 15's "stonewall" approach to cooperative testing with Pinpoint. As detailed in Appendix 2, Washington Gas, an Itron customer, last year initiated a number of unreasonable and unrealistic demands literally on the eve of testing with Pinpoint. Appendix 2 also includes Pinpoint's response to Part 15's unilateral withdrawal in December 1994 from testing, explaining the willingness of multilateration licensees to participate in the tests prior to the adoption of rules.¹⁴ The motives of Part 15 commenters proposing delays for testing are thus suspect.

IV. PART 15 INTERESTS ARE PAINFULLY AWARE OF THE UNPRECEDENTED NATURE OF THE PRIMARY STATUS THAT THE *ORDER* CONFERRED UPON THEM RELATIVE TO LICENSED LMS SYSTEMS

The record indicates that the Part 15 industry harbors deep doubts regarding the propriety of the *Order*'s elevation of Part 15's status in the band, and justifiably so. This is manifest in their desperate and wildly various attempts to elevate form over substance and rationalize Part 15's new-found primary status. Part 15 is unwilling to call a spade a spade! Part 15 now has the attributes of primary status relative to multilateration LMS.

Symbol, for example, claims that LMS is *not* a radiocommunications service within the meaning of Section 15.3(m) of the Commission's rules and therefore is not entitled to protection from Part 15.¹⁵ But the vehicle location function of multilateration LMS clearly involves the "transmission . . . of radio waves" for telecommunications purposes, which

¹⁴ Part 15 interests have stated that they are absolutely certain that a 300 watt wide band forward link will cause interference. *See, e.g.*, Part 15 Coalition at 5. If this assertion were genuine, it is enigmatic why Part 15 was first eager and then reluctant to conduct tests to corroborate the claim. Moreover, if the assertion were true, it is anomalous indeed that there have been no complaints associated with Pinpoint's trial in Northern Virginia area after 1½ years of 16 MHz 500 ERP watt operation.

¹⁵ Symbol at 6.

Section 2.1 defines as including any transmission of "signals" by radio systems.¹⁶ Thus, LMS is a radiocommunications service.¹⁷

The Part 15 Coalition offers its own specious justification for the Commission's actions, disingenuously claiming that the rules still do not permit Part 15 to cause harmful interference. Rather, the Coalition argues, the agency merely modified Part 90 to redefine harmful interference to exclude what would otherwise have been considered the same to certain Part 90 systems without rewriting the Part 15 rules.¹⁸ This argument brashly elevates form over substance. If the FCC can simply define harmful interference away, the Part 15 duty to refrain from causing interference ultimately becomes meaningless.¹⁹ Moreover, the priority status granted Part 15 in the *Order*, far from being a trivial "refinement," is a complete rewrite of FCC spectrum management policy unsupported by the record and contrary to the APA, as Pinpoint has discussed earlier.²⁰

In its Petition, Pinpoint commented that the meaning of "final link" for subpart B and

¹⁶ 47 C.F.R. § 2.1.

¹⁷ Symbol also argues that because the FCC did not have to authorize LMS operation at all, it can place any restrictions on LMS systems that it deems appropriate. Symbol at 9. Given that the FCC has *licensed* LMS stations, however, it has a statutory duty to regulate interference to such licensed stations, certainly from unlicensed devices. *See* 47 U.S.C. § 301. Contrary to Symbol's argument, the Commission is not compelled to provide similar protection to unlicensed devices. Indeed, the Act provides that the FCC may authorize "stations" only pursuant to a license with the exception of the Citizens Band Radio and Radio Central Services. *Id.* at §§ 301, 307(e). If unlicensed stations are permitted, it must be on the basis of not causing interference to licensed stations.

¹⁸ Part 15 Coalition at 9.

¹⁹ The Part 15 Coalition's claim that unlicensed devices must still accept any interference received from multilateration LMS systems (at 8-9) is similarly illogical, as such systems must first demonstrate they will not cause "unacceptable interference."

²⁰ In their Oppositions, the Part 15 industry vainly attempted to defend the *Order*'s unprecedented elevation of the status of Part 15 by noting Teletrac's silence on the issue in its petition. *See, e.g.*, TIA at 2-3. Unhappily for Part 15, Teletrac's opposition made clear its solidarity with other multilateration LMS commenters in assailing the elevation of Part 15's status. *See* Teletrac at 5-6.

C eligibles in the *Order* was undefined and, accordingly, reserved the right to seek reconsideration of any FCC ruling further clarifying the meaning of the term. In response, a group of commenters led by Metricom, submitting comments on this point that are often *verbatim* identical, contested that the term "final link" had been adequately defined in the record and that Pinpoint had lost the right to seek reconsideration of the term's definition when clarified.²¹ A close reading of the "examples" in the record to which these parties cite where "final links" used by subpart B and C eligibles reveals not a single use of the term "final link" or reference to a subpart B or C eligible. Accordingly, Pinpoint's argument for the need to define this ambiguous term is indisputable.

Moreover, Pinpoint's concerns about the scope of the parties that would seek to benefit from this exception are borne out by ATA's and the Learning Coalition's requests to expand and fit within the exception. It seems that the "final link" is actually the "missing link" that will allow Metricom to evolve into the "bigfoot" of the 902-928 MHz band, stomping out LMS systems and lesser Part 15 devices as it crowds the band with its unlicensed alternative to broadband PCS systems.

V. SBMS MISREADS THE ACT WHEN IT SUGGESTS THAT CONCERNS ABOUT SMALL BUSINESSES PARTICIPATING IN THE LMS INDUSTRY CAN BE RELEGATED ENTIRELY TO SOME FUTURE AUCTION PROCEDURES RULEMAKING

SBMS's opposition attempts to refute Pinpoint's argument -- made in its Petition -- that FCC adoption of a shared sub-band for multilateration systems will fulfill the agency's statutory obligation to ensure the participation of small, entrepreneurial companies like Pinpoint in the LMS market. SBMS argues that Pinpoint's concern should be addressed

²¹ See Learning Coalition at 8; ATA at 1-5; Metricom at 15-17.

through auction rules, rather than the spectrum allocation plan at issue in this proceeding.²²

Given that the band plan is fundamental to all licensees' operations, however, clearly it is appropriate, indeed essential, that the Commission consider the ability of small companies to compete at this stage in the development of rules governing the LMS industry.

Moreover, Sections 309(j) and 332 of the Communications Act strongly argue that the Commission should adopt a shared sub-band in this case. As Pinpoint observed in its Petition, Subsection 309(j)(2) of the Act directs that even if mutual exclusivity is genuine among some systems, auctions may be conducted only if they promote the operation of licenses by small entrepreneurial businesses. Moreover, Section 309(j)(6)(E) of the Communications Act requires the FCC to seek engineering solutions to avoid mutual exclusivity.²³ Pinpoint has offered such a solution and demonstrated its feasibility with Uniplex. Further, under Section 332 of the Act the FCC has a duty, in taking actions to manage spectrum for private land mobile spectrum, to "improve the efficiency of spectrum use." A shared sub-band would create significant incentives for such efficiency. Accordingly, adoption of a shared sub-band would not only prove good policy, but also satisfy the FCC's unambiguous statutory dictates.

VI. OTHER PARTIES AGREE WITH PINPOINT THAT GRANDFATHERED LICENSEES MERIT ADDITIONAL FLEXIBILITY

The record indicates broad support for modification of the grandfathering rules to provide licensees greater flexibility in constructing and operating their systems to better serve the public's needs.²⁴ MobileVision, while concurring generally with Pinpoint that such

²² SBMS at 7. SBMS further argues that auctions of 2 MHz blocks would somehow increase small company participation. Pinpoint has explained why this pernicious proposal shuts out entrepreneurial companies developing new technologies. Pinpoint Opposition at 24.

²³ 47 U.S.C. § 309(j)(6)(E).

²⁴ The record contains no meaningful opposition to the time-sharing report attached to Pinpoint's Petition. In the face of concrete evidence about the relative ease with which time-

(continued...)

flexibility will further the FCC's LMS goals, stated specifically that it does not object to Pinpoint's proposal to allow grandfathered licensees to build out within the BTAs in which they are licensed.²⁵ SBMS agreed with all of Pinpoint's proposals, except that it favors the ability to locate new transmitters within a 75-mile radius from the center point of the service area for which a licensee originally applied.²⁶ Pinpoint believes that such a rule generally would succeed, like a BTA build-out rule, in promoting the public interest in the availability of more useful LMS.²⁷

Respectfully Submitted,

PINPOINT COMMUNICATIONS, INC.

By: 

David E. Hilliard
Edward A. Yorkgitis, Jr.
Michael K. Baker
WILEY, REIN & FIELDING
1776 K Street, N.W.
Washington, D.C. 20006
(202) 429-7000
Its Attorneys

June 7, 1995

²⁴(...continued)

sharing could be accomplished, other multilateration licensees could do no more than repeat *pro forma*, argumentative assertions. Further, Teletrac misread Pinpoint's report as suggesting that an arbitrator is necessary for time sharing. *See* Teletrac at 18. However, the report -- like Pinpoint's Petition and previous comments in this proceeding -- emphasizes that sharing is best accomplished through private negotiation, as is appropriate. *See, e.g.*, Petition for Reconsideration of Pinpoint Communications, Inc. at 9. An arbitrator is merely one *option* to which the parties could agree.

²⁵ MobileVision at 4 n.4.; *see also* Reply Comments of MobileVision at 3.

²⁶ SBMS at 21-22.

²⁷ Pinpoint notes that the comments of other LMS interests indicate a consensus that the use of the 902-928 MHz band for interconnected voice communications generally should be restricted. SBMS states that such communications should be the exception rather than the rule and that the FCC should preclude licensees from attempting to turn LMS into a PCS-like service. SBMS at 15-16. Similarly, Teletrac advocates allowing voice communications, but only on a secondary basis. Teletrac at 13. Only MobileVision continues to press for unrestricted use of voice on a primary basis. MobileVision at 3-4. However, it is plain that such a policy would be contrary to the Commission's goals for LMS to serve a unique and important place in the development of Intelligent Transportation Systems.

APPENDIX 1
TO REPLY OF PINPOINT COMMUNICATIONS, INC.

Abbreviations used in the text:

Ad Hoc Gas

Comments on Petitions for Reconsideration of Ad Hoc Gas Distribution Utilities
Coalition

CellNet

Opposition of CellNet Data Systems, Inc.

Learning Coalition

Opposition of the Connectivity for Learning Coalition

Metricom

Opposition of Metricom, Inc, and Southern California Edison Company

MobileVision

Opposition of MobileVision

Part 15 Coalition

Opposition of The Part 15 Coalition

SBMS

Opposition and Comments of Southwestern Bell Mobile Systems, Inc.

Symbol

Comments of Symbol Technologies, Inc.

ATA

Opposition of the American Telemedicine Association

Teletrac

Opposition of Airtouch Teletrac

TIA

Comments of the Telecommunications Industry Association, User Premises
Equipment Division, Wireless Consumer Communications Section

Uniplex

Uniplex Corporation Opposition

APPENDIX 2
TO REPLY OF PINPOINT COMMUNICATIONS, INC.

The following documents are attached hereto:

- (1) Confidentiality agreement proposed by Washington Gas (dated June 14, 1994);
- (2) Pinpoint's response to the proposed agreement (dated June 15, 1994); and
- (3) Pinpoint's response to Part 15's withdrawal from testing in December 1994 (dated Dec. 8, 1994).

On May 29, 1994, Pinpoint personnel and counsel met with Washington Gas personnel and its counsel at the offices of Washington Gas. Pinpoint requested the meeting to address concerns that Washington Gas had raised in ex parte presentations to the FCC. Pinpoint offered to engage in testing with Washington Gas. Following subsequent discussion among engineering personnel of both Pinpoint and Washington Gas, tests were scheduled for June 15, 1994. On June 13, Washington Gas first told counsel for Pinpoint that it wanted to sign a confidentiality agreement governing the testing.

Washington Gas presented to Pinpoint's counsel a proposed confidentiality agreement late in the afternoon of June 14, just the day before tests were to begin between Pinpoint's system and Washington Gas's automated meter reading equipment (supplied by Itron). The language of this agreement would have prohibited either party from disclosing, without other parties' prior consent, the test results to the FCC and other entities.

Pinpoint's counsel replied on June 15, 1994 by suggesting language that would allow disclosure of the test results, but accommodate the concerns of Washington Gas. Pinpoint's proposal was rejected outright. As a result, the tests were canceled, even as Pinpoint's engineers were on-site at the facilities of Washington Gas.

Similarly, Pinpoint's letter to FCC Chairman Hundt dated December 8, 1994 describes how The Part 15 Coalition -- who unilaterally pulled out of tests scheduled for December 3 and 4, 1994 -- mischaracterized the nature of the tests and the extent to which various parties were to have participated.



**Washington
Gas**

FAX TRANSMISSION

THIS IS PAGE ONE OF PAGES

TO: DAVID HILLIARD

FAX NUMBER: 202-429-7049

TELEPHONE: 202-429-7058

FROM: RON BOONE

FAX NUMBER: 703-750-7570

WASH. GAS

TELEPHONE: 703-750-4213

DATE: 6/14/94

TIME: 5:30pm

Pinpoint/Strm/ Washington Gas

SPECIAL INSTRUCTIONS: Confidentiality Agreement

Washington Gas attorney -- Karen Lancost
Phone # -- 202-624-6512

AGREEMENT

This Agreement, made this 15th day of June, 1994, by and between Washington Gas Light Company (Washington Gas), Itron, Inc. (Itron), and Pinpoint Communications, Inc. (Pinpoint)

WITNESSETH

Whereas, Washington Gas uses Itron's automated meter reading (AMR) equipment; and

Whereas, the Itron AMR equipment is a Part 15 user of the 902-928 MH, radio band; and

Whereas, Pinpoint has applied for a license from the Federal Communications Commission (FCC) for the 902-928 MH, radio frequency band used by the Itron AMR system for Pinpoint's automatic vehicle monitoring (AVM) system; and

Whereas, all the parties are concerned about the possibility of radio interference between the AVM and AMR systems; and

Whereas, the parties believe it would be helpful to conduct a preliminary assessment of possible interference types and patterns in order to help develop either a formal test protocol for interference testing or a definition of interference for possible consideration by the FCC; and

Whereas, the parties are aware that such a preliminary assessment can be easily misinterpreted or used for purposes other than those stated supra; and

Whereas, the parties would not agree to participate in any preliminary assessment unless they were assured that all information about the preliminary assessment would not be disclosed;

Now, THEREFORE, the parties agree as follows:

I. DEFINITION OF INFORMATION

The above recitals are hereby incorporated into this agreement. The term "Information" as used in this Agreement, shall mean all matters in any way connected with the preliminary assessment, including but not limited to: the fact that such a preliminary assessment occurred; the time, place, participants, procedures or protocols employed, equipment used, or conditions of the preliminary assessment; the results of the preliminary assessment; the nature of the interference types or patterns identified or discovered; or the existence of, or the terms and conditions of, this Agreement. The parties intend that this definition be construed as broadly as possible.

II. TREATMENT OF INFORMATION

The parties shall not disclose any Information to any person, firm, company, governmental agency or commission (expressly including the FCC and its staff) or organization without the prior written consent of all the other parties. The parties each agree to take such precautions with respect to the Information as the party takes with proprietary materials of its own which it does not desire to have disclosed, disseminated, or published.

III. TERM

This Agreement shall remain in full force and effect for five (5) years from the date first above written, except that if a party breaches this Agreement, or any of the Information becomes publicly available from any source, the remaining parties shall not be subject to the terms and conditions of this Agreement.

This Agreement shall inure to the benefit of, and be binding upon, the parties, their successors and assigns.

IV. REMEDY

The parties agree that a remedy at law for breach of this agreement will be inadequate, and that any party may seek injunctive or other equitable relief in the event that another party improperly releases or discloses the Information.

IN WITNESS WHEREOF, the parties have executed this Agreement

WASHINGTON GAS LIGHT COMPANY

By: _____

Title: _____

ITRON, INC.

By: _____

Title: _____

PINPOINT COMMUNICATIONS, INC.

By: _____

Title: _____

C

WILEY, REIN & FIELDING
1776 K Street, N.W.
Washington, D.C. 20006
Phone Number: (202) 429-7000
Facsimile Numbers: (202) 429-7207 or (202) 429-7049

Confidentiality Note

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WILEY, REIN & FIELDING

1776 K STREET, N.W.
WASHINGTON, D.C. 20006
(202) 429-7000

DAVID E. HILLIARD
(202) 429-7058

FACSIMILE
(202) 429-7049

June 15, 1994

Via Facsimile

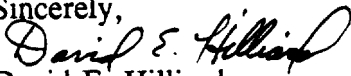
Karen Pancost, Esq.
Office of General Counsel
Washington, DC

Dear Ms. Pancost:

Following up on our telephone discussion this afternoon and after a brief telephone conversation with Mr. Jandrell of Pinpoint, I am suggesting that the following language be substituted for that contained in Section III of the revised agreement as sent to Mr. Boone this morning:

The Parties agree that if any of them prepares a written report of the preliminary assessment that the Party that desires to disclose to the FCC or anyone other than a Party, then a draft of the report will be circulated to all other Parties. Each Party shall have seven calendar days to comment on the report, provided however that no report shall be disclosed unless all Parties agree to its contents. Because of the limited nature of the preliminary assessment, it is expressly agreed that any such report shall contain an accurate and objective description of the tests and the results and shall caution against the drawing of unwarranted conclusions as to the electromagnetic compatibility between AVM systems generally and AMR systems generally or as to the electromagnetic compatibility between the Pinpoint AVM system and the Itron AMR system. No approval of such a report shall be arbitrarily withheld, but no Party shall in any way be obligated to endorse publicly or otherwise support publicly any such report and no endorsement shall be stated or implied in any such report without a Party's consent.

I hope this language helps to meet the concerns we discussed. Because of the time situation today, I am also taking the liberty of sending a copy of this letter to Mr. Boone, who is meeting with Mr. Jandrell. Thank you for jumping into this matter on short notice and for discussing it with me.

Sincerely,

David E. Hilliard
Counsel for Pinpoint Communications, Inc.

cc: Mr. Ron Boone

77-58-7-2
DUPLICATE

WILEY, REIN & FIELDING

1776 K STREET, N.W.
WASHINGTON, D. C. 20006
(202) 429-7000

DAVID E. HILLIARD
(202) 429-7058

December 8, 1994

DEC 8 1994
FACSIMILE
(202) 429-7049
TELEX 248349 WYRN UR

Chairman Reed E. Hundt
Federal Communications Commission
1919 M Street, N.W., Room 814
Washington, D.C. 20554
STOP CODE: 0101

**Re: Ex Parte Communication
PR Docket No. 93-61
Automatic Vehicle Monitoring**

Dear Chairman Hundt:

The purpose of this letter is to set the record straight on the position of Pinpoint Communications, Inc. ("Pinpoint") on testing between wide-area AVM and Part 15 technologies. Pinpoint has been seeking tests with Part 15 interests since the spring of this year, only to have the Part 15 interests involved repeatedly pull out at the last minute. (Pinpoint has also submitted the only test data in the record that directly assess the ability of wide-area and local-area AVM systems to share. The results support the conclusion that sharing between these types of systems is practical.)

In light of the letter you received yesterday from counsel for the Part 15 Coalition ("Part 15 Coalition Letter"), you should be fully informed of some of the more recent developments concerning tests. Pinpoint and Itron, Inc. were discussing in detail tests to be conducted in Washington, D.C. on November 14 and 15, 1994, only to have Itron decline on the day Pinpoint was scheduled to send personnel and ship equipment to set up for the tests. Itron acted purportedly out of a desire to participate in more "comprehensive" tests three weeks later in California. Because there is a large base of Itron automatic meter readers ("AMRs") in the vicinity of Pinpoint's experimental AVM system in Washington, D.C., the interactions between AMRs and Pinpoint's forward *and* reverse links could have been fully tested in Washington. Nonetheless, in a spirit of cooperation, and despite that fact that Pinpoint has no installed equipment in California, Pinpoint agreed to go to the West Coast to participate in testing.

The Part 15 Coalition Letter mischaracterizes the tests that were to have been conducted in California on December 3, and 4. First, the nature of the tests and the extent to which

Chairman Reed E. Hundt
December 8, 1994
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Teletrac, MobileVision, and Southwestern Bell were intending to participate in the California tests relates to a state of affairs known to the Part 15 Coalition several weeks before the Part 15 interests unilaterally canceled the tests. Despite this knowledge which the Part 15 Coalition Letter states was the reason for canceling the tests, the Part 15 interests strung Pinpoint along for three weeks before unilaterally canceling the December 3 and 4 tests. (Indeed, Pinpoint had engineering personnel installing equipment in California for the tests when it received word of the cancellation.)

Second, the Part 15 Coalition Letter incorrectly states the nature of the December 3 and 4 tests when it says they "would have examined only the wideband forward link issue." Pinpoint and Teletrac were planning to have receiving equipment in place to assemble data from Part 15 transmissions that could be used to analyze the effects of unlicensed devices on the return link. Pinpoint and Teletrac intended to share the data with each other. Pinpoint was also planning to share its data with MobileVision and Southwestern Bell to allow them to conduct their own analyses (and understood Teletrac would do the same). Indeed, the Part 15 Coalition Letter was referring to such reverse link tests when it stated, somewhat inaccurately, "Teletrac and Southwestern Bell were planning . . . to monitor the test and, perhaps, extrapolate the *Pinpoint* test results to their own systems." (emphasis added) The reference was to reverse link tests -- wideband forward link tests would be of no interest to Teletrac and Southwestern Bell because they use narrowband forward links.

Pinpoint has not favored a partial decision in this matter. The results of AVM/Part 15 testing would be relevant to the allocation decision in general, not just the use of the wideband forward link. If test results show that virtually all Part 15 interests do not cause harmful interference to Pinpoint and also show that Pinpoint can operate without causing harmful interference to Part 15, such results would be extremely relevant to any allocation decisions. This is especially true given the positive results of Pinpoint testing with local-area technologies. Pinpoint's principal position on tests has always been, like that of the Part 15 Coalition, that the FCC should await the results of tests before making any decision. However, if the Commission is still undecided on the wideband forward link issue, Pinpoint would urge the FCC not to make a decision on that matter prematurely.

If other wide-area AVM companies have not been as willing to test as the Part 15 Coalition may have desired, that should come as no surprise. The capacity of their systems is significantly smaller than Pinpoint's. Thus, they would naturally have less incentive to engage in testing that could not only reveal that Pinpoint's wide-area AVM system is more compatible with Part 15 devices but also support a shared allocation that accommodates Pinpoint's system.

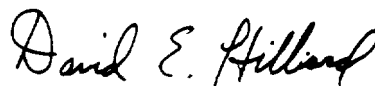
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If Pinpoint were to be eliminated as a potential competitor because of insufficient field data as to its compatibility with Part 15, such a result would serve their interests and those of Part 15.

Finally, despite its frustration with the successive cancellation of tests, Pinpoint believes that the testing discussions with the Part 15 community were beneficial. At long last, at least there was an informed exchange of views among the engineers who, if there are to be technical solutions, will find them. Pinpoint remains willing to test and to continue to work for ways to operate in the 902-928 MHz band on a shared basis.

Two copies of this letter are being submitted to the Secretary's office as required by Section 1.1206(a)(1) of the FCC's Rules.

Respectfully submitted,



David E. Hilliard
Counsel for Pinpoint Communications, Inc.

cc: Commissioner James H. Quello
Commissioner Andrew C. Barrett
Commissioner Rachelle B. Chong
Commissioner Susan Ness
Ruth Milkman, Esq.

Lauren Belvin, Esq.
Mr. James R. Coltharp
Jane Mago, Esq.
David R. Siddall, Esq.
Mr. F. Ronald Netro
Rosalind K. Allen, Esq.
Henrietta Wright, Esq.
Counsel for the Part 15 Coalition

CERTIFICATE OF SERVICE

I hereby certify that on this 7th day of June, 1995, I caused copies of the foregoing "Reply of Pinpoint Communications, Inc." to be mailed via first-class postage prepaid mail to the following:

Mr. George L. Lyon, Jr.
Lukas, McGowan, Nace
& Gutierrez, Chartered
1111 19th Street, N.W., Ste. 1200
Washington, D.C. 20036
Counsel for
AD HOC GAS DISTRIBUTION
UTILITIES COALITION

Ms. Theresa Fenelon
Pillsbury Madison & Sutro
1050 Connecticut Ave., N.W.
Suite 1200
Washington, D.C. 20036
Counsel for
AIR TOUCH TELETRAC

Mr. Christopher D. Imlay
Booth Freret & Imlay
1233 20th Street, N.W., Ste. 204
Washington, D.C. 20036
Counsel for
THE AMERICAN RADIO RELAY
LEAGUE, INC.

Ms. Jane Preston, MD, FAPA
President
The American Telemedicine Assoc.
901 15th Street, N.W., Suite 230
Washington, D.C. 20005
Counsel for
AMERICAN TELEMEDICINE
ASSOCIATION

*Mr. David Hilliard
Wiley, Rein & Fielding
1776 K Street, N.W.
Washington, D.C. 20006
Counsel for
AMTECH CORPORATION

Mr. Mark C. Rosenblum
Kathleen F. Carroll
Ernest A. Gleit
295 North Maple Avenue
Room 3252F3
Basking Ridge, New Jersey 07920
Counsel for
AT&T

Mr. Lawrence J. Movshin
Wilkinson, Barker, Knauer & Quinn
1735 New York Avenue, N.W.
Washington, D.C. 20006
Counsel for
CELLNET DATA SYSTEMS, INC.

Mr. Gordon M. Ambach
Executive Director
Council of Chief State School Officers
One Massachusetts Ave., N.W.
Suite 700
Washington, D.C. 20001-1431
Counsel for
CONNECTIVITY FOR LEARNING
COALITION

Mr. Matthew J. McCoy
Staff Vice President
Government and Legal Affairs
2500 Wilson Boulevard
Arlington, VA. 22201
Counsel for
CONSUMER ELECTRONICS GROUP
ELECTRONIC INDUSTRIES
ASSOCIATION

Mr. Raymond B. Grochowski
Lathan & Watkins
1001 Pennsylvania Ave., N.W.
Washington, D.C. 20004
Counsel for
HUGHES TRANSPORTATION
MANAGEMENT SYSTEMS

Mr. Robert B. Kelly
Kelly & Povich, P.C.
1101 30th Street, N.W.
Suite 300
Washington, D.C. 20007
Counsel for
INTELLIGENT TRANSPORTATION
SOCIETY OF AMERICA

Mr. Allan R. Adler
Cohn and Marks
1333 New Hampshire Ave., N.W.
Suite 600
Washington, D.C. 20036

Counsel for
THE INTERAGENCY GROUP

Mr. Henry Rivera
Ginsburg, Feldman & Bress, Chtd.
1250 Connecticut Ave., N.W.
Washington, D.C. 20036
Counsel for
METRICOM, INC. &
SOUTHERN CALIFORNIA EDISON
COMPANY

Mr. John J. McDonnell
Reed Smith Shaw & McClay
1200 18th Street, N.W.
Washington, D.C. 20036
Counsel for
MOBILEVISION, L.P.

Ms. Henrietta Wright
Goldberg, Godles, Wiener & Wright
1229 Nineteenth Street, N.W.
Washington, D.C. 20036
Counsel for
THE PART 15 COALITION

Mr. Daniel S. Goldberg
Goldberg, Godles, Wiener & Wright
1229 Nineteenth Street, N.W.
Washington, D.C. 20036
Counsel for
RAND MCNALLY & COMPANY

Ms. Henrietta Wright
Goldberg, Godles, Wiener & Wright
1229 Nineteenth Street, N.W.
Washington, D.C. 20036
Counsel for
ITRON, INC.

Mr. Glen Wilson
Vice President and

Chief Technology Officer
Safetran Systems Corporation
10855 7th Street
Rancho Cucamonga, CA 91730
Counsel for
SAFETRAN SYSTEMS
CORPORATION

Mr. Louis Gurman
Gurman, Kurtis, Blask
& Freedman, Chartered
1400 Sixteenth Street, N.W.
Suite 500
Washington, D.C. 20036
Counsel for
SOUTHWESTERN BELL MOBILE
SYSTEMS, INC.

Mr. Daniel L. Bart
Vice President
Telecommunications Industry
Association
2500 Wilson Boulevard
Suite 300
Arlington, VA. 22201
Counsel for
TELECOMMUNICATIONS
INDUSTRY ASSOCIATION USER
PREMISES EQUIPMENT DIVISION
WIRELESS CONSUMER
COMMUNICATIONS SECTION

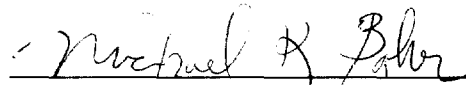
Ms. Catherine Wang
Swidler & Berlin, Chartered
3000 K Street, N.W.
Suite 300
Washington, D.C. 20007
Counsel for
TEXAS INSTRUMENTS
INCORPORATED
MFS NETWORK TECHNOLOGIES,
INC.

Mr. Gerald P. McCartin
Arent Fox Kintner Plotkin & Kahn
1050 Connecticut Avenue, N.W.
Washington, D.C. 20036-5339
Counsel for
SYMBOL TECHNOLOGIES, INC.

Mr. McNeil Bryan
President
Uniplex Corporation
2905 Country Drive
St. Paul, Minnesota 55117
Counsel for
UNIPLEX CORPORATION

Mr. Jeffrey L. Sheldon
General Counsel
1140 Connecticut Ave., N.W.
Suite 1140
Washington, D.C. 20036
Counsel for UTC

Mr. Hugh M. Pearce
President and CEO
Wireless Transactions Corporation
1183 Bordeaux Drive, Suite 22
Sunnyvale, CA 94089
Counsel for
WIRELESS TRANSACTIONS CORP.



Michael K. Baker

*Hand-Delivered